

REMARKS

Claims 1, 4-12, 14 and 17-19 are pending in the present application. Claims 1, 4, 9, 14, and 17 are amended in this response. Reconsideration of the claims is respectfully requested.

I. Requirement for new Declaration

It is noted that new Declaration was submitted on 06/02/04, just before the present office action was mailed. A petition was also filed to accept the Declaration of one of the inventors, since he could not located. It is further noted that a decision on the petition was mailed on 6/25/2004, granting the petition and accepting the Declaration. Thus, this issue is believed to be resolved.

II. Claim 9 Objected to

Claim 9 was objected to for a grammatical error. The examiner is thanked for bringing this to the undersigned agent's attention. The claim has been amended as suggested by the examiner.

III. 35 U.S.C. § 103, Obviousness

Claims 1, 4-7, 11-12, 14 and 17-19 have been rejected under 35 U.S.C. § 103 as being unpatentable over Law et al. ("A Scalable and Distributed WWW Proxy System", Proc. IEEE Intl. Conf. Multimedia Computing and Systems, June 3-6, 1997, pp. 565-571) in view of Caccavale et al. (U.S. Patent No. 5,459,837), and Welter et al. (U.S. Patent No. 6,138,157). This rejection is respectfully traversed.

Exemplary claim 1 recites,

1. (Amended) A method for dynamically selecting a firewall server for a web client, in particular a web browser, in a Transmission Control Protocol/Internet Protocol (TCP/IP) network comprising a plurality of firewall servers, said method comprising the steps of:

measuring performance and availability of each firewall server using measurement probes, including measuring the total response time needed for retrieving from a web server known information, in particular one or a plurality of known web pages, through each firewall server and wherein the step of measuring the total response time comprises the further steps, for each firewall server, of:

starting timing for a given one of said plurality of firewall servers;
establishing a connection with the web server through each firewall server said given one;

retrieving the one or a plurality of known web pages from the web server;
checking that the retrieved one or plurality of web pages contain one or a plurality of known keywords; and
stopping timing for said given one of said plurality of firewall servers;
and
dynamically selecting a firewall server according to the performance and availability measurements.

With regard to Claim 1, the Office Action states:

As to claim 1, Law teaches a method comprising the steps of:

measuring performance and availability of firewall server [Sec. 1, col. 2, lines 2-5; Sec 2, par. 3; Law discloses measuring the response time and availability of proxy (firewall) servers], wherein the step of measuring the performance and availability of each firewall server comprises the further step of measuring the response time needed for retrieving from a web server [Sec. 5, par. 2; Law discloses measuring the response time for retrieving data from a web server] known information, in particular one or a plurality of known web pages, through each firewall server [pg. 570, col. 1, lines 4-5; Law discloses retrieving the same HTML document during testing] and wherein the step of measuring the response time comprises the further step of:

establishing a connection with the web server through each firewall server [pg. 570, col. 1, last paragraph; Law discloses a connection from a client to a web server through the testing system (firewall servers)]; and
retrieving the one or a plurality of known web pages from the web server [pg. 570, col. 1, lines 4-5; Law discloses retrieving the same HTML document during testing];
and

dynamically selecting a firewall server according to the performance and availability measurements [Sec. 2, par. 2, Law discloses dynamically distributing transactions among the proxy servers].

Law does not expressly teach the limitations of using measurement probes, and checking that the retrieved one or plurality of web pages contain one or a plurality of known keywords.

However, Caccavale teaches a method for monitoring the performance of servers in a network and for suggesting an appropriate server to a client requesting a service (see abstract). Caccavale teaches the limitation of using measuring the performance of each server using measurement probes [col. 4, line 53-57].

Welter teaches a method for testing web sites hosted by web servers coupled to a TCP/IP protocol network. Welter teaches the limitation of checking that the retrieved one or plurality of web pages contain one or a plurality of known keywords [col. 7, line 66-col. 8, line 6; Welter discloses checking retrieved HTML data for expected content (known keywords)].

Law, Caccavale and Welter are analogous art because they relate to analyzing the performance of servers.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Law in view of Caccavale so as to analyze the proxy servers' performance using measurement probes. One would be motivated to do so to control the accuracy of the analysis by modifying the number of probes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Law in view of Welter so as to check the content of

retrieved HTML data. One would be motivated to do so to enable correction of detected errors.¹

It is respectfully submitted that there are a number of problems with this rejection:

(a) Law is not attempting to choose a single server among a group of servers to use as a firewall server; rather Law is dividing a workload among the group of servers, (b) while Law does make measurements of response time, this patent measures from the depot to the server, not from the client to a website through the server, and (c) the combination of these references does not teach the claimed invention. These problems will be discussed individually below.

(a) Law not selecting a firewall server

The rejection appears to notice that Law is “distributing transactions among the proxy servers”², but somehow equates this to “selecting a firewall server”³. It is submitted that one of ordinary skill in the art would not equate these two actions; Law discloses an inclusive action that uses all available proxy servers while the claim recites an inherently exclusive action that selects a single firewall server from the group of servers. These are simply not the same action and should not be equated.

(b) Law not measuring total response time

In the instant response, the independent claims are amended to clarify that the inventive program and method are measuring the total response time from the user through the firewall to the website and back to the user, including checking that the page retrieved was not an error. This measurement takes into account the network delays that are inherent in the location of the firewall server, so that what is being compared is a realistic view from the user’s standpoint.

Law, in contrast, is measuring response from the depot to each of the servers. Law does not disclose making a choice for a single user, based on a best response for that user. Rather, Law is interested in distributing the load so that the number of requests being handled is improved. Law does not consider that a user may have a better option, since Law is not directed to the user’s choice.

¹ Office Action dated February 3, 2004, pages 3-5

² Office Action of 06/03/2004, page 4, lines 10-12

³ Office Action of 06/03/2004, page 4, lines 10-12

(c) Combination does not teach invention

It is further submitted that none of the cited references, i.e., Law, Caccavale, and Welter, show measuring the total time it takes to retrieve known information through a firewall. Neither do any of these references show performing this measurement on a number of firewall servers and using this information to select a specific firewall to use. Caccavale was cited as showing the use of probes and Welter was cited as demonstrating a determination that a site had been correctly retrieved. Since none of the references show these steps, their combination cannot show the steps.

Therefore, the rejection of claims 1, 4-7, 11-12, 14 and 17-19 under 35 U.S.C. § 103 has been overcome.

Claims 8-10 are rejected as unpatentable over Law et al. in view of Caccavale et al., Welter et al., and Yamane et al. (U.S. Patent No 6,317,786). This rejection is respectfully traversed.

It is submitted that claims 8-10 are dependent on claim 1 and are thus allowable at least for the same reasons discussed above. This rejection has been overcome.

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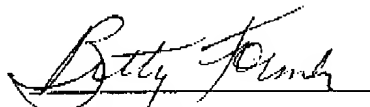
IV. Conclusion

It is respectfully urged that the subject application is patentable over Law et al., Caccavale et al., Welter et al., and Yamane et al. and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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